DOCUMENT RESUME

ED 029 730 24 RC 003 439

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Organization of Educational Programs in Sparsely Settled Areas of the World.

New Mexico State Univ., University Park. ERIC Clearinghouse on Rural Education and Small Schools.
Spons Agency-Office of Education (DHEW), Washington, D.C.
Bureau No-BR-6-2469
Pub Date Jun 69
Contract-OEC-4-6-062469-1574
Note-20p.; Paper presented at the International Conference on Arid Lands in a Changing World (University of Arizona, Tucson, Arizona, June 3-13, 1969)
EDRS Price MF-$0.25 HC-$1.10
Descriptors-*Comparative Education, *Educational Innovation, Educational Needs, *Educational Planning, Elementary Education, *International Education, Population Distribution, Primary Education, *Rural Education, Secondary Schools, Universal Education, Vocational Education

Only one-third of the world's population presently lives in countries where as much as a complete primary education is provided for children in rural areas. While the number of one-teacher schools in the United States has decreased from 148,711 in 1930 to 15,018 in 1961, a similar trend is not taking place as rapidly in other areas of the world, resulting in a continuation of already inadequate educational programs at both the primary and secondary levels. Innovative programs in rural education are, however, beginning to emerge throughout the world. For a number of years in New South Wales, for instance, there have been Mobil Instructional Units which serve remote areas. A recent study in Alaska recommends the building of 6 regional boarding high schools in remote Alaskan regions by 1975, with 8 additional boarding schools planned for 1980. Goals developed during a recent Conference of African States for the Development of Education in Africa include universal primary education in this century, with provisions for at least 20% of all children leaving primary schools to enroll in secondary schools. The total emphasis worldwide appears to be on pre-vocational and vocational education, and organization and administration of education, in addition to increasing primary and secondary schooling opportunities. (EV)

ED029730

NEW MEXICO STATE UNIVERSITY

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Prepared for the International Conference
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ORGANIZATION OF EDUCATIONAL PROGRAMS IN SPARSELY SETTLED AREAS OF THE WORLD

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June 1969

ABSTRACT

Organization of Educational Programs in Sparsely Settled Areas of the World

by

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Throughout the world the rural person is two or three years behind urban dwellers in educational attainment. This situation is especially acute in sparsely populated areas where large distances and few people make it almost impossible to provide adequate educational programs for the inhabitants. Some primary programs are now beginning to appear, but secondary and post high school programs are almost nonexistent.

Two of the major problems in remote areas are lack of finances and scarcity of trained teaching staff. Transportation also continues to be a problem.

In the United States the number of small rural schools is rapidly decreasing, primarily due to consolidation of existing school districts. Throughout most of the world rural schools are under the jurisdiction of the Ministry of Education rather than local people.

A number of promising educational programs are emerging in sparsely populated areas of the world. A number of these are financed by UNESCO in underdeveloped countries. Others are being conducted in the western United States, Australia, Alaska, and the Arctic regions.

Ministers of education through the world are beginning to realize the importance of special educational programs for rural populations in order to upgrade the educational achievements of their total populations. Those aspects of education which seem to be receiving the greatest amount of emphasis in rural areas of the world are teacher education, organization and administration, vocational education, and economic and social development.

ORGANIZATION OF EDUCATIONAL PROGRAMS IN SPARSELY SETTLED AREAS OF THE WORLD

by

Everett D. Edington*

In this day of the knowledge explosion, the major deterrent to an individual's progress is lack of opportunity for an adequate education. Throughout the world the rural person is two or three or even more years behind his urban cousins in educational achievement. This is even more true in sparsely populated rural areas where the large distances and few people have made it almost impossible to economically provide a program which would enable the people in these areas to compete. Recently government officials and others have begun to realize that it may be far more economical to provide a basic education for these people than to allow them to fall further and further behind. Throughout the world large numbers of rural children are no longer returning to the land to make their living. Many of them now need to be prepared for other situations in which they will live the major portion of their lives. (21)

Only about one-third of the world's population lives in countries where a complete primary education is provided for children in rural areas. Elsewhere, children living outside of towns either do not go to school at all or else attend schools where teaching does not cover more than two, three, or four years study. (11) This situation is more widespread in the underdeveloped countries of Asia, Africa, and South America.

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A UNESCO study published in 1964 revealed that over half of the population in 59 out of 82 countries was rural, and that in over 32 countries more than 70% of the inhabitants lived in rural areas. The same study also brought out the fact that most primary students did not leave their home areas to attend school. This meant that many children in sparsely populated areas did not have schools to attend.(2)

In the United States there are still a small number of "one-room schools" in existence. These are primarily in thinly populated areas. Most of these are disappearing, however, as consolidation takes place. Buses are used to transport hundreds of thousands of rural children in the United States daily. Many are transported thirty to forty miles one way to their schools.

Havinghurst (13) found in 1965 that many rural schools in Brazil had only a single room and single class which might contain pupils from four primary grades. A second type of school building had two or three classrooms, with one teacher in charge of each. In this case some classes might be combined, or one class attend in the morning and another in the afternoon. The great majority of the primary schools in Brazil are rural. Secondary schools are almost nonexistent in rural Brazil. In order to attend secondary school, most rural children must live in town with friends or relatives.

In 1962 the Committee on International Relations of the National Education Association reported that in Afghanistan less than ten percent of all Afghan boys were enrolled in school, and education of girls outside the home was a recent development. Some of the country's primary schools existed in rural areas, but secondary schools were only in Kabul and the provincial capitals. (23)

The educational situations in Brazil and Afghanistan are similar to those found in many of the less developed countries of Asia, South America, and Africa. In 1962, for example, there were 100,000 children of school age in the Sahara who did not attend school. (29)

Another important factor to consider is that large numbers of rural children will no longer be returning to the land to make their living, and the educational programs in the rural communities should prepare them to make a living in a more urban setting.

The cost of education is becoming an extremely important factor in determining which educational opportunities are to be made available. Distance increases the cost for all services which a rural community requires, and education is no exception. Those communities in sparsely settled areas often have the least resources and the greatest need for more adequate educational programs.

Other research has shown that there is a much higher level of educational wastage for rural than urban areas. Studies conducted in Burma, Ceylon, and Iran each found this to be true. (4) It is generally recognized that to live in a rural area often diminishes a person's chances of acquiring a complete education.

Special Educational Problems Related to Small Population in Large Geographic Areas

Due to the nature of sparsely populated areas, there are a number of educational problems which are either unique to these areas or are intensified because of the particular situation. One of the most serious difficulties is that of obtaining adequate teachers. A UNESCO study (2) found "that the lack of teaching staff and the difficulties of recruitment in backward regions lead to the appointment in rural areas of teachers who have little or no training, or whose qualifications are often inferior to those teachers in towns." Throughout the world persons trained as teachers prefer to live in the cities and larger towns where facilities are more modern. The majority of teachers come from the populated areas and have no desire to work in the more backward rural areas. Those persons who come from the rural areas also prefer to teach

in the urban areas. In Nicaragua in 1966 only 35% of the teachers in rural areas were college graduates. (7) Most of the rural areas pay lower salaries to teachers than do the urban centers of population.

Proper finance of education, which is a problem in all areas, is intensified in the sparsely settled regions. Because of the inefficiency due to small numbers of students, it is difficult to provide comprehensive programs in these areas. In 1965 the average cost per student in Alberta in Canada was $399.72 which was above the average cost per student in the urban areas. The cost will probably continue to increase as rural areas attempt to compete with urban areas for teachers, and as the demands for vocational and other specialized courses increase. (26) The lower educational level of the rural student is no longer a problem for the rural area only. Both Abramson (1) and Lindstrom (20) point out that when these people migrate to the urban centers they are rather limited in the skills they possess. This has a significance for both economic and social adjustments of these migrants. Lindstrom also points out "that systems of support on a wider equalization base must be developed, for rural areas, especially the poor land areas, contribute a large number of youth to urban areas." (20)

Transportation of students has always been a barrier, but there are a number of unique programs in the experimental stage which will be mentioned later in this paper. Better roads which are being built in many remote areas greatly increase the use of buses.

Hobart (14) discovered that boarding school programs cause drastic changes in the children which are difficult for the parents to understand. He found four possible kinds of changes which a child moving from an Eskimo settlement to a boarding school, and back, might experience. There may be (a) physiological changes in the way of body functions; (b) social psychological changes in his sense of personal

security, his attitudes and motives, and his way of relating to other people; (c) changes in his moral conceptions in what he will do and not do; and (d) non-moral cultural changes--changes in the skills, abilities, and in his expectations of life.

He found for the students from the more isolated villages that school was a completely frustrating experience. They were made unfit to live in the land camps which are their homes, but they are not adequately prepared to make a successful transition to wage work in town.

Administrative Organization of Educational Programs in Sparsely Populated Areas

The organization of schools in remote areas is far from being the result of a deliberate attempt to adopt and improve the work of the school. Usually it is due to the pressure of circumstances which tend to render the rural school incomplete and thus deprive the children of an adequate education at both the primary and secondary level. (11) In some instances such organization may not be due only to the geographic situation but also to the reluctance on the part of the members of the community to associate with other communities in school consolidation. Improved transportation has made this change possible much faster than many people are willing to accept.

Schools for children from non-urban areas have quite commonly one, two, three, or four classes. In the United States there was a rapid decrease in the number of one-teacher schools. They decreased from 148,711 in 1930, 74,832 in 1948 to 15,018 in 1961. (27) Seven midwestern plains states had 53% of the one-teacher schools in the country.

There is a growing tendency to group pupils from rural areas in central schools. The two most mentioned ways of doing this were to transport the students by bus or to provide boarding school establishments. In some cases traveling teachers are being used. (2)

The Bureau of Indian Affairs has three programs to provide for the education of the Indian Youth on the reservations in the United States. They are (a) boarding schools away from the reservation, (b) bordertown schools that provide education for the Indian youth at public schools while living in dormitories, and (c) schools on the reservation. A 1965 report showed that the average cost per pupil was $1,409.73 in boarding schools, $1,420.62 in bordertown schools, and $690.01 in reservation schools. The Bureau is building more public reservation schools, especially at the elementary school level. (25) In many cases inadequate roads are creating problems for bus transportation to these reservation schools.

In only a few countries do rural schools come under a distinct administrative department from those dealing with urban schools. In most cases they fall within a department under the Minister of Education. Where educational administration is decentralized as it is in the United States, Scotland, or Switzerland, some educational districts will be wholly rural. (11)

Almost all of the rural Arabian schools in Jordan are supported by village funds. Formal schooling there is much more advanced for boys than girls.

Australia has no local boards of education, but each state has a director of education with a professional staff. Australia has an extensive correspondence course program for some 10,000 students in remote areas. These students are unable to attend a regular school.

In Israel each kibbutz has its own elementary school up to the sixth grade. Upon graduation from elementary school the children have completed their compulsory state education requirements. The children can then attend consolidated secondary schools which may have from 150 to 300 adolescents. (16)

There is a growing tendency throughout the world to provide more boarding schools for the students from remote areas even though this practice is beginning

to decrease on Indian reservations in the United States as more schools are being constructed on the reservations themselves.

In most cases the overall curriculum and syllabuses of the various subjects are the same in town and country. The major difference is inclusion of agricultural courses in the rural areas for more than half of the countries in the world. (11) In Africa agriculture is now appearing in the curriculum of many schools, even at the primary level. (3) In Israel, three to four year continuation agricultural classes are often located in agricultural settlements. (19)

In North Africa the projects for the development of the Sahara soon created a vocational education problem. Vocational training centers for both boys and girls have been set up to meet these needs. Vocational education is one of the most rapidly growing curriculum fields in rural areas of the world. It is a problem in the more sparsely settled areas to have enough students to justify the expense of the costly vocational programs. Edington found in an evaluation of the Jimma Agricultural-Technical High School in Ethiopia that there was a need to increase the practical work training in the vocational schools. This was especially true of the graduates who did not continue their education into higher education. This work experience could produce products which may offset the higher costs of the vocational training. (10)

Promising Programs for Education in Sparsely Populated Areas

Innovative programs in rural education are beginning to emerge throughout the world. These are sponsored largely by UNESCO in the underdeveloped countries and by the Elementary and Secondary Act in the United States. Doubtless there are numerous promising projects being developed by the various Ministers of Education throughout the world, but information is very difficult to obtain on the majority of these.

One of the oldest and most extensive programs of education in the sparsely populated regions is carried out in Australia. For a number of years in New South Wales there have been Mobile Instructional Units on wheels which served the remote areas. A number of these were vocational and technical training facilities which traveled on railroad cars or trucks. As population increased many of these units developed into permanent facilities for vocational or technical education. (16) Another program which has been pioneered in Australia is that of radio and correspondence courses. The parents are usually responsible for supervising the work with occasional visits by a traveling teacher.

The State Department of Education in Utah has developed an experimental Mobile Office Education Unit which is nicknamed "MOE." This is a series of trailers which, when joined together, form a modern office to provide simulated office experiences for the students. The unit rotates between three or four different schools and provides experience in a modern up-to-date office that would be impossible for the separate schools to offer. (28)

In Omdurman, Sudan, a teacher training institute has been built which was designed especially for desert conditions. The design aims at delaying the heating up to insure lower temperatures in classrooms during teaching hours. This has largely been achieved by roof protection against the sun's radiation through insulation and by special wall thicknesses. A heavy wall facing the prevailing angle of the sun's rays causes the temperature during the day to rise more slowly inside than outside. During the cold nights, when this same design is used for dormitories, inside temperatures drop more slowly and never reach the extremities of the outside. This entire facility is a laboratory for research on school buildings in arid climates, and is also analyzing space costs for secondary schools in different regions of the world. (3)

A recent study (1967) recommends the development of a regional high school system for rural Alaska. Each of the regional schools would provide boarding facilities for students. This plan would prove feasible for about a dozen high schools. The study recommends six regional boarding high schools for 1975 and eight additional ones by 1980. (8) A report from the Alaska State Department of Education pointed out that such a plan may not be feasible, and that more smaller secondary schools are needed which would be closer to the students' homes. (24)

The state of Alaska is probably doing more to provide education for persons in remote areas than any other in the United States. The following is a description of some of the problems involved and programs which they initiated. This information comes from a report of the Alaska State Department of Education which was published in 1968. (17)

In 1960 only thirty-four percent of Alaska's native children, ages 14 through 19, were enrolled in secondary schools. Today the Department of Education operates village schools across the state, making the rural system the largest school district in area in the United States. "One hundred seventy-three rural day schools are maintained by the State and Bureau of Indian Affairs for elementary pupils. With the exception of the nine largest villages, rural school children must be transported from their villages to metropolitan areas in order to attend high school." In spite of this hardship recent surveys show that less than one percent of Alaska's native eighth grade graduates fails to enter high school.

One example of what is happening in Alaska is the Beltz Regional Boarding School at Nome. The school consists of academic and vocational education facilities, a cafeteria, a dormitory for 170 students, and apartments for supervisors and teachers. Such a school must provide for the complete life of the student which includes recreation and home life as well as the academic. Even strictly academic courses need

to be slanted toward practical everyday learning situations. Because this is the last academic preparation the students have for their lives in the north, a great deal of emphasis is given to vocational education. Complete courses are offered which combine the academic and the vocational training.

A problem which arises in boarding schools is the frustration and bewilderment which is caused by the sudden change from the small village to the school and dormitory living. To help with this situation at Beltz, a Village Orientation Program has been instituted. This program attempts to introduce the native student and his family to school personnel and staff while he is yet in his home village. School personnel visit the village during the summer before school starts in order to acquaint the students with the program. They take slides, films, and other visual aids with them in order to give the student a more accurate idea of what the school will be like.

Another program developed in Alaska is the Boarding Home Project where funds are made available to board the students in homes in the larger town where the schools are located. This year over 370 students have been accepted in the program. It is financed by Title I of the Elementary and Secondary Act. After two years of operation the State now looks on this as a major part of the long range educational program.

The major problems encountered in this type of program are those which stem from acculturation. The student lives in two different worlds, that of his native village and his boarding home at school. In order to minimize these problems, a home-school coordinator works with numerous students to help them make the necessary adjustments. He becomes acquainted with the students before they leave the village and then finds homes for them in town, and is available through the year to assist

them. This program was initiated to serve the overflow of students who could not get into the dormitories at the boarding schools, and is now a regular part of Alaska's educational program.

Plans for the Future

Throughout the world there is increased emphasis on improving education in rural areas. With improved ground and air transportation, distances are no longer formidable. Major services such as education are much closer to the man who is living away from the center of population.

The goals of the Conference of African States for the Development of Education in Africa were as follows:

1. Universal primary education.
2. 20% of all children leaving primary schools enrolling in secondary schools.
3. University enrollment reaching 300,000 (31,000 enrolled in 1961 - 18,000 in Africa and 13,000 abroad).

In 1961 less than half of the 25 million children of school age in middle Africa would complete their primary education. Less than three out of every hundred would attend secondary school. Two out of a thousand would attain some higher education. (3)

The Conference of Ministers of Education and Ministers Responsible for Economic Planning in Countries in Latin America and the Caribbean in 1966 recommended (a) that the differences that still exist in the duration of the primary cycle in urban and rural schools, to the determent of the latter, be eliminated, and (b) that more widespread use be made of new educational techniques, like television, that can help to counteract the scarcity of teachers, help in the work of teaching, bring urban and rural education to equivalent standards, and reduce costs. (7)

UNESCO has reported that Afghanistan, in its third five-year plan which extends

from 1967 to 1972, provides for 500 new village schools, and for transforming 512 one-teacher village schools into two-teacher schools. These are all on the primary level. (6)

Included in the rural education activities which are proposed by UNESCO for 1969-70 are the following:

(a) There will be a "...continuation of the experimental project on in-service teacher training at Makerere College (Uganda) with added stress placed on rural development .... The project will combine elements of in-service teacher training and the development of new course content, teaching methods, and materials." Member states in Africa will be invited to associate themselves closely with the development of this project by providing support to local study groups.

(b) Another experimental project will be based in a predominantly rural country in Latin America, and will foster the use of audio-visual aids, including radio and television, and special pre-vocational training for boys and girls in the 11-14 age group living in rural areas. This program will last three years.

(c) A regional workshop for Arab-speaking member-states will be conducted with the participation of UNESCO experts and national specialists to examine the needs for further development of pre-service and in-service training of primary school teachers, with particular reference to the improvement of primary education in rural areas.

(d) A rural-oriented primary teacher-training institute will be held in Cameroon.

(e) Numerous teacher education programs will be developed in Asia, Africa, and South America.

Throughout the world there is an increased emphasis on pre-vocational and vocational education. (29) This area along with organization and administration will receive increased emphasis in the next four years. Dr. Abdel El-Koussy, Director of the Regional Centre for Educational Planning and Administration in the Arab Countries, in his report on the "Trends of Educational Research in Arab Countries," indicated that university research will focus on the current problems of administration and of economic and social development. (5) This seems to be the trend throughout the world.

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A Unit of the Educational Resources Information Center of the Bureau of Research, U.S.O.E.